UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CITY VIEW PLAZA, SUITE 7000
#48 165 RD. KM 1.2
GUAYNABO, PR 00968-8069

JUN 0 8 2012

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Irma López
Acting Director
Compliance and Quality Control Directorate
Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
San Juan, Puerto Rico 00916-9990

Re: Compliance Evaluation Inspection
Guánica Wastewater Treatment Plant
NPDES Permit Number PR0020486

Dear Mrs. López:

On May 17, 2012, the United States Environmental Protection Agency (EPA) conducted a Compliance Evaluation Inspection (CEI) at the Guánica Wastewater Treatment Plant. The purpose of the inspection was to assess PRASA's operational and maintenance practices at the facility.

Enclosed you will find a copy of the Water Compliance Inspection Report, which summarizes our findings during the CEI. Within forty five (45) calendar days of receipt of this letter, please respond with the actions PRASA has taken or will be taken to address the findings of the inspection.

Should you have any questions, feel free to contact me or Miguel A. Batista of my staff at (787) 977-5823.

Cordially,

Jaime A. Géliga
Chief
Municipal Water Programs Branch
Caribbean Environmental Protection Division

Enclosure

cc. Roberto Ayala, EQB
Juan C. Perez, PRASA
David Velázquez, PRASA

EPA

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2 5	3 PR0020486 11	12 120517 17	18 C	19 R	20 1

Remarks: 2 ____ 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
6 2.0 69	70 1	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(for industrial users discharging to POTW, also include name and NPDES permit number*

GUÁNICA WASTEWATER TREATMENT PLANT
YAGUER ST.
Guánica, P.R. 00653

Entry Time/Date	Permit Effective Date
8:30 am 05/17/2012	12/01/2008
Exit Time/Date	**Permit Expiration Date**
12:00 pm 05/17/2012	11/30/2013

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

787-821-2865
See attached report for on-site representative

Other Facility Data

Name, Address of Responsible Official/Title/Phone and Fax Number(s)

Julio V. Pérez, Executive Regional Director
PRASA South Region

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

X	Permit	X	Flow Measurement	X	Operations & Maintenance		CSO/SSO (Sewer Overflow)
X	Records/Reports	X	Self-Monitoring Program	X	Sludge Handling/Disposal		Pollution Prevention
X	Facility Site Review		Compliance Schedules		Pretreatment		Multimedia
X	Effluent/Receiving Water		Laboratory		Storm Water		Other: Pump Stations

Section D: Summary of Findings/Comments *(Attach additional sheets of narrative and checklists as necessary)*

See attached report for findings.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Miguel A. Batista, Environmental Scientist	CEPD-MWPB (787) 977-5823 (ph) ; (787) 289-7104 (fax)	6-8-12
Signature of Management Q A Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Jaime A. Geliga, Chief Municipal Water Programs Branch	CEPD-MWPB (787) 977-5840 (ph) ; (787) 289-7104 (fax)	6-8-12

Summary of Findings/Comments
Water Compliance Inspection Report Form
(EPA Form 3560-3)

COMPLIANCE EVALUATION INSPECTION

Facility Name: Guánica WWTP
NPDES Permit Number: PR0020486
PRASA Representative: Amalio Quirós, Plant Operator

I. BACKGROUND

A Compliance Evaluation Inspection (CEI) was conducted on May 17, 2012 at the Guánica WWTP. The CEI consisted of an opening interview to discuss the purpose of the inspection and to request information about the facility. The inspection consisted of a site tour to assess the operational and maintenance conditions, document's review, and a closing interview to discuss preliminary findings. Finally, a grab sample of the effluent was collected to determine compliance with the effluent limitations established by the permit at the time of the inspection.

II. PLANT OPERATION AND MAINTENANCE

The Guánica WWTP consists of two treatment modules. One module is a 0.5 MGD activated sludge conventional package plant (Old Plant) and the second module is a 1.25 MGD Biological Nutrient Removal (BNR) treatment plant (New Plant). At the time of the inspection the BNR module was not in operation.

At the time of the inspection, Mr. Amalio Quirós was acting as Plant Operator for the Guánica WWTP. Mr. Quirós has obtained the certification as a Wastewater Treatment Plant Operator Level IV # 2099 which expires on April 22, 2014.

III. FACILITY SITE REVIEW – SUMMARY OF FINDINGS

A. Preliminary Treatment

1. Bar Screens/Comminutors
   - The plant has two entrance channels: one channel has a bar screen, and the other channel has a comminutor.
   - The entrance channel with the bar screen is used when the comminutor goes out of service. At the time of the CEI, the bar screen was not in use. But it had solids and plastic materials, as seen in Figure # 1 attached.
   - The comminutor was in operation at the time of the CEI.
2. Influent Wet Well/Influent pumps
   - The wet well was almost clean, but had grease at its surface.
   - The plant has three (3) influent pumps. Unit # 1 and # 2 were in operation. Unit # 3 was in stand-by mode, but in operable condition.
3. Grit Removal Mechanism
   - The facility has two (2) Pista type grit removal systems.
   - Both units were in stand-by mode, but in operable condition. According to the operator, these units are not in use because they need to be cleaned. Work order # 10091899 for unit # 1 was completed on April 2, 2012. Work order # 10091639 was completed on February 8, 2012 for unit # 2. The transmission of both units had vibration.
   - There is one screw conveyor to collect the grit from both grit removal systems, which was in

service at the time of the CEI. The screw conveyor was corroded, as seen in Figure # 2 attached. Form AAA-340-A # 15558 (10075359) was completed on October 26, 2011.
- The collection bin for the screw conveyor was also corroded, as seen in Figure # 3 attached.

B. Secondary Treatment
1. Activated Sludge Module
- Filamentous organisms were observed at the surface of the clarifier, as seen in Figure # 4 attached.
- Short-circuiting was observed at the "V-type" effluent weirs of the clarifier, as seen in Figure # 5 attached.
- Floatables and scum were observed at the clarifier's center well or inner baffle, as seen in Figure # 6 attached.
- The air piping had an air leak at one of its joints.
- Solids accumulation was observed at the surface of the digester, as seen in Figure # 7 attached.
- There are three (3) blowers. Only one (1) blower is needed to provide aeration. Unit # 3 was in operation. Units # 1 and # 2 were in stand-by mode, but operable. Work Order # 10093591 was completed on March 27, 2012; their filters do not match.

C. Chlorination/De-chlorination Facilities
- There are three (3) chlorine contact chambers at the facility. All units were in operation at the time of the CEI.
- The surface of the chlorine contact chamber had some floatables, and its water had a green-like color appearance, as seen in Figure # 8 attached.
- The chlorine inventory at the time of the inspection consisted of four (4) - two thousand gallon pound chlorine cylinders (2,000 lbs): one (1) chlorine cylinder was in use, one (1) chlorine cylinder was empty, and two (2) chlorine cylinders were full.
- The plant has two (2) chlorine leak detectors. When a chlorine leak was simulated, both units did work. These units were calibrated on April 30, 2012.
- The exhaust fan was in operation.
- The two (2) automatic chlorine application devices were in operation. Both units were calibrated on April 30, 2012.

D. Sludge Handling
1. Aerobic Digester Chamber
- Digester was operating as intended.
2. Drying beds
- The plant has two (2) unroofed sludge drying beds. One unit was full, and the other unit was empty.
3. Sludge Belt Filter Press
- The sludge belt filter press was not in operation, but operable. According to the operator, the sludge belt filter press unit has not been in service for almost three (3) weeks because sandblasting is being performed to the sludge belt filter press building.

E. Alternate Power Units (APU)
- The facility previously had one (1) APU for the activated sludge package plant with a 500-gallon diesel tank capacity.
- At the time of the CEI, and although the BNR Module was not in operation, its new APU (750 KVA) with a 5,000-gallon diesel tank capacity was in service.
- Figure # 9 attached shows a partial view of the diesel tank for the new APU. The secondary containment system for this unit needs to be cleaned. According to the operator, the diesel level ruler did not work. The operator has not a safe access to the diesel tank.
- The addition of water for the new APU's radiator, results unsafe as well for the operator who

needs to stand on the APU's motor to perform this task. This unit has no stairs or a safe mechanism to access it.
- The APU's building has no potable water service.
- When a power outage was simulated the APU worked properly.

F. Auto-Samplers
- This facility has two auto-samplers. At the time of the CEI, the temperature inside both the influent and effluent auto-samplers was 4 °C. Both temperatures were within the acceptable range of less or equal to 6 °C.
- The influent and effluent sampling hoses need to be changed.
- Both auto-samplers were last calibrated on May 16, 2012.

G. Daily Sampling Meters
- The dissolved oxygen, the turbidimeter, the pH and the residual chlorine meters were in good operational conditions.
- The above-mentioned equipments were last calibrated on April 30, 2012.

H. Flow Measuring Devices
- The primary flow measuring device being used at the facility is a Parshall flume.
- A flow totalizer and a chart recorder were being used as secondary flow measuring devices.
- The flow totalizer was last calibrated on April 30, 2012.
- The chart recorder was last calibrated on January 12, 2012.

I. Effluent Quality

A grab sample of the effluent was taken by the operator at sampling point 001 during the inspection. Effluent was clear, no solids were observed. The results of the effluent sample taken during the inspection were as follows:

a. Residual chlorine – 2.20 mg/l
b. pH – 7.59 S.U.
c. Temperature - 27.3 °C.
d. Dissolved oxygen (DO) – 6.13 mg/l.
e. Settleable solids- 0.00.
f. Turbidity – 1.99 NTU

IV. RECORDS REVIEW

A. A copy of the NPDES permit was available at the plant.
B. Process Control, Sampling and Compliance Data Record
1. Copies of the daily sampling average reports were available for review.
2. A review of the DMRs for the period of April 2011 to March 2012 revealed the following exceedances:
   - January 2012 – Residual Chlorine
   - December 2011 – Residual Chlorine
   - November 2011 - Enterococci (Geo Mean)
   - October 2011 – Enterococci (Geo Mean); Enterococci (Exceedance)
   - September 2011 – Enterococci; Coliform, Fecal
   - May 2011 – Enterococci; Zn, total (as Zn)
   - April 2011 – Enterococci
3. Copies of the sampling itineraries were available for review.
4. Copies of the auto-samplers maintenance records and chain of custody data were available for review.

C. Maintenance Records

1. Equipment operational status checklist (Form AAA-48) - The equipment operational status is being check on a daily basis. The following table details the equipment that was out of operation on date of the inspection.

EQUIPMENT	DATE REPORTED	WORK ORDER #	TYPE OF FAILURE
Exterior illumination	August 14, 2011	15538 10069938	Light bulbs out of service
Poly Blend System	September 20, 2011	15549 10072295	Pending for PLC Programming
MCC BNR Room	March 6, 2012	10090165	Fuse out of service
Chlorine Contact Chamber's Drainage Valve	March 5, 2012	10088796	Broken drainage valve

2. Logbook – A random check of the Preventive Maintenance Schedule (PMS) for the months of February/2012 and May/2012 revealed that all work orders were performed as scheduled.
3. Emergency generator checklist (Form AAA-500-C) – The operational status of the APU is being done on a bi-weekly basis.

D. Sludge Manifests # 1406, # 1236, # 0988, # 0993, and # 0922 from AVICART, Inc. (corresponding to the months of January, February and March from year 2012) had no signature from the final disposal facility.

V. CONCLUSION

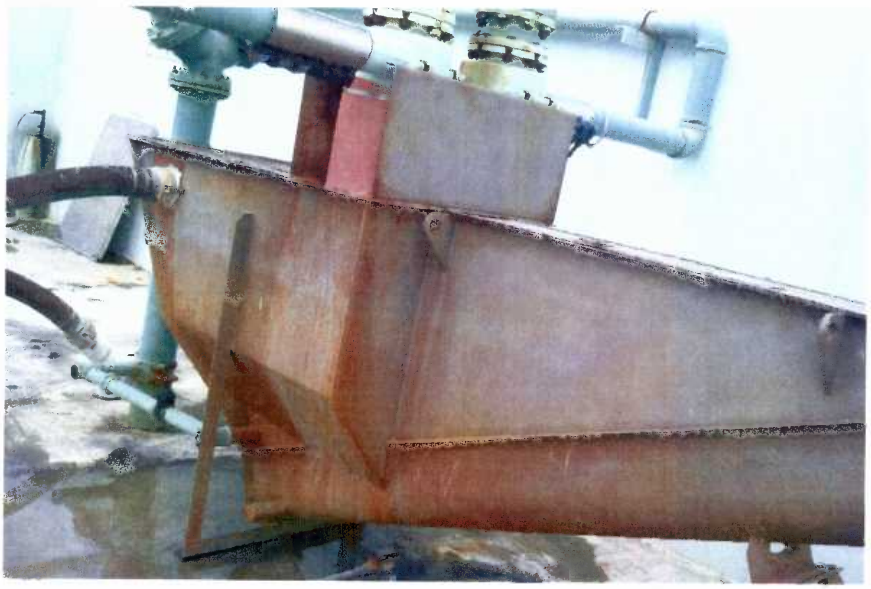
Please note that Part C.5 of Attachment I of the permit requires the permittee to properly operate and maintain all facilities and systems for collection and treatment (and related appurtenances) which are installed or used to achieve compliance.

Guanica WWTP CEI

May 17, 2012

Figure # 1

Bar screen.



Guanica WWTP CEI

May 17, 2012

Figure # 2

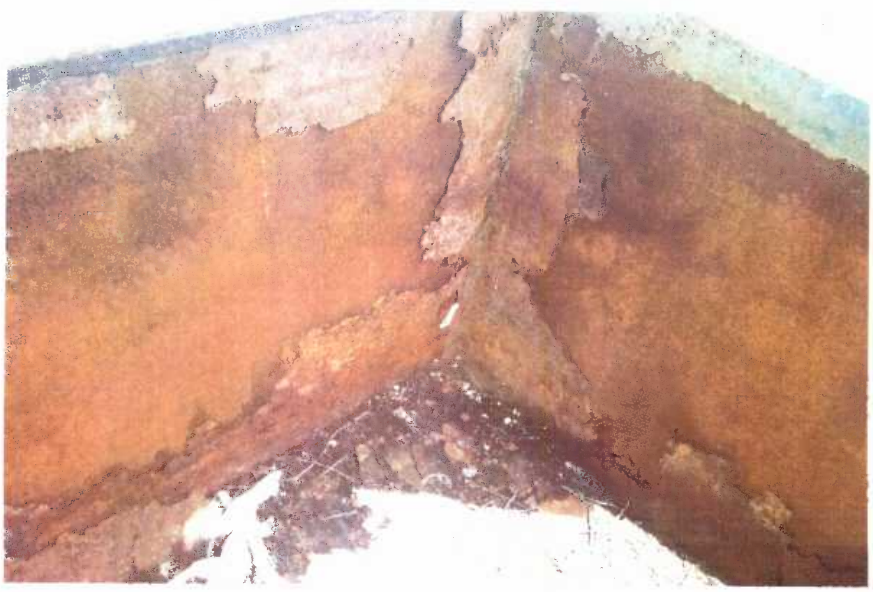
Screw conveyor.

Guanica WWTP CEI

May 17, 2012

Figure # 3

Collection bin for the screw conveyor.



Guanica WWTP CEI

May 17, 2012

Figure # 4

Clarifier's surface.

Guanica WWTP CEI

May 17, 2012

Figure # 5

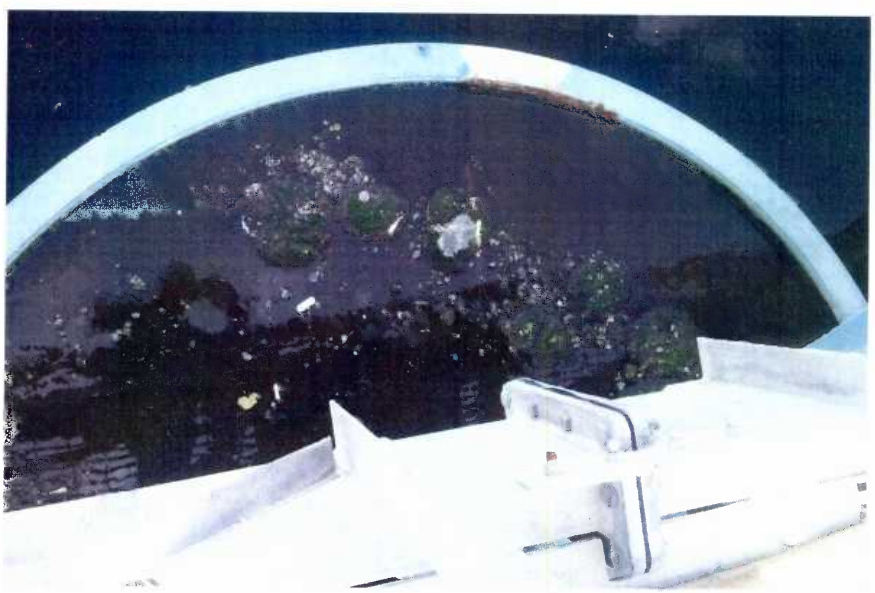
Clarifier's "V-type" effluent weirs.

Guanica WWTP CEI

May 17, 2012

Figure # 6

Clarifier's center well or inner baffle.

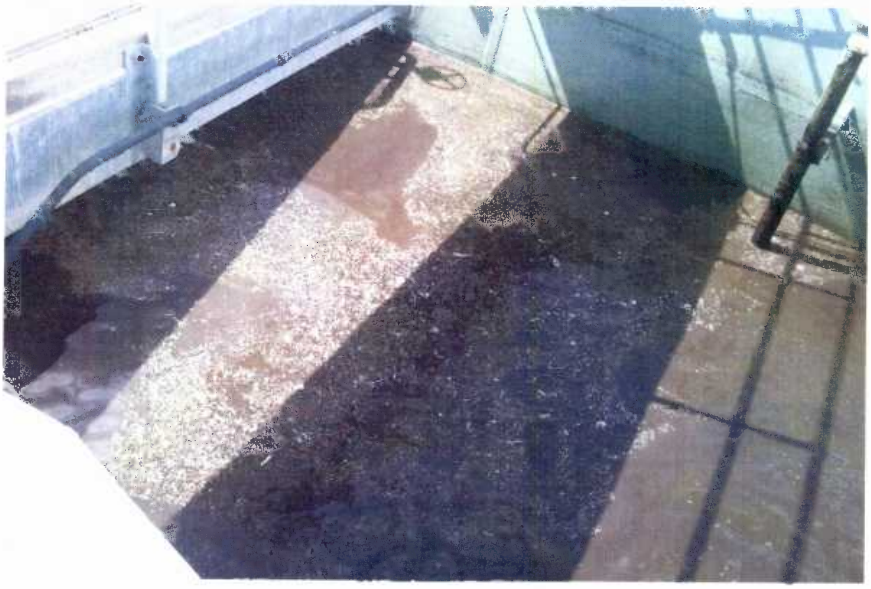


Guanica WWTP CEI

May 17, 2012

Figure # 7

Sludge digester.



Guanica WWTP CEI

May 17, 2012

Figure # 8

Chlorine contact chamber.

Guanica WWTP CEI

May 17, 2012

Figure # 9

Diesel tank for the Alternate Power Unit.